

ABSTRACT OF THE INVENTION

This invention relates to macrocyclic chelants comprised of one or two heteroatom-containing bridges, 5 compositions containing them and their use in medicine, particularly in diagnostic imaging and radiotherapy. This invention relates especially to the use of metal chelates of the macrocyclic chelants as metallopharmaceuticals in Magnetic Resonance Imaging (MRI) and radiopharmaceuticals. 10 This invention also relates to macrocyclic chelants as bifunctional chelating agents (BFC's) for the labeling of biologically active targeting molecules such as proteins, peptides, peptidomimetics, and non-peptide receptor ligands, with metal ions and radioisotopes.

15